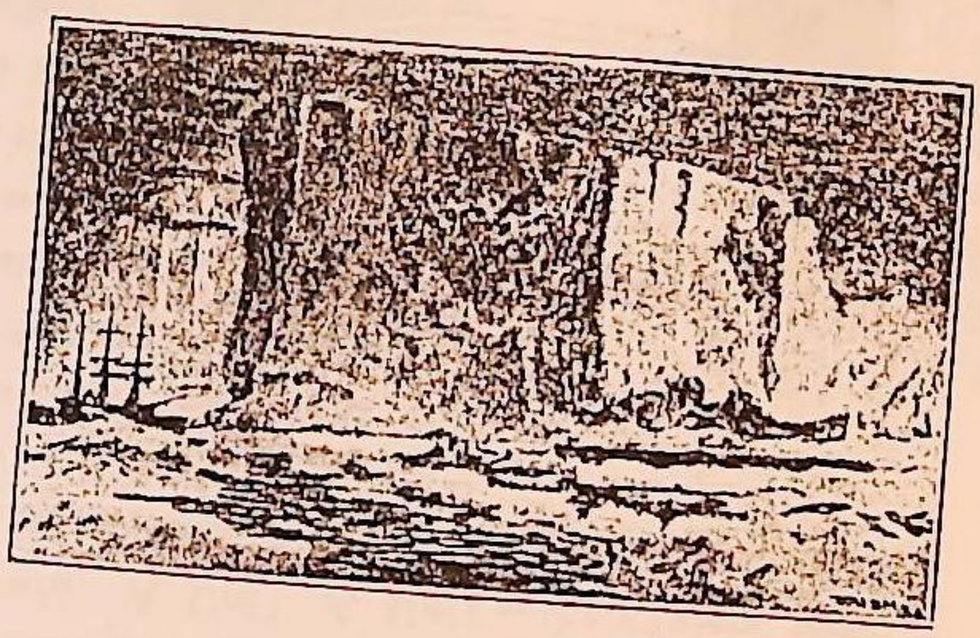
(?NARVAL)
(ANTARCTIQUE)

FROM EDINBURGH TO THE ANTARCTIC

An Artist's Notes and Sketches during the Dundee Antarctic Expedition of 1892-93

BY W. G. BURN MURDOCH

WITH A CHAPTER BY W. S. BRUCE
NATURALIST OF THE BARQUE 'BALÆNA'



LONDON
LONGMANS, GREEN AND CO.
AND NEW YORK: 15 EAST 16TH STREET
1894

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C.279

MUSÉE OCÉANOGRAPHIQUE BIBLIOTHÈQUE MONACO

[17 décembre 1892, détroit de Bransfield, océan antarctique, sur le Balaena]

Just after killing the seal there was a shout amongst the men forward, 'A Uni! A Uni!'—the whalers' term for a Narwhale. Several men said they saw their horns.

→ de "unicorn" évidemment

The crow's-nest was sent aloft to-day. It is a cask, about five feet deep, painted white, with iron clamps that clasp on to the main-topgallant mast. In the bottom there is a trap-door. To get into the nest you climb up a Jacob's ladder—wooden ratlins rigged on two backstays that run from the top-gallant mast-head to the cross-trees; these run through the bottom of the tub. You climb up these and shove the trap open with your head, and when you are right into the tub you let the trap shut below you, and stand on it, and enjoy the extensive view. If you prefer it, you can sit on a shelf-seat fixed in the back of the tub—a sheltered, quiet place, far removed from the troubles of the little world below: round the top of the tub there is a small iron balustrade, on which a screen runs, so as to shelter the watcher from the wind.

. . . The boats were all lowered from the skids to the

MUSÉE OCÉANOGRAPHIQUE
DE MONACO

NARWHAL-LIKE DOLPHIN IN S. PACIFIC

Old tusker

FOSSILS Ancient tusked dolphin found in New Zealand.

Evidence that a tusked dolphin once swam the seas has recently been uncovered in New Zealand. Ewan Fordyce, a cetacean palaeobiologist from Otago University, New Zealand, made the discovery in a limestone quarry in the Hakataramea Valley, South Canterbury.

Mecca of today's dolphin-lovers – you can swim with them 80km from the inland rocks where the fossil was found – New Zealand's South Island was partially covered by a shallow sea during the early Miocene, around 23 million years ago. The discovery of such an ancient specimen is like a spotlight on the early vacillations of cetacean evolution.

Comprising the skull – about a metre long – the lower jaws, many small teeth, parts of the fore-flipper, ribs and spine, the fossil indicates a body length of around 5 to 6 metres. The tusk is a modified tooth which grew out forwards from the jaw, proportionally longer than the teeth of any living cetacean except the narwhal's.

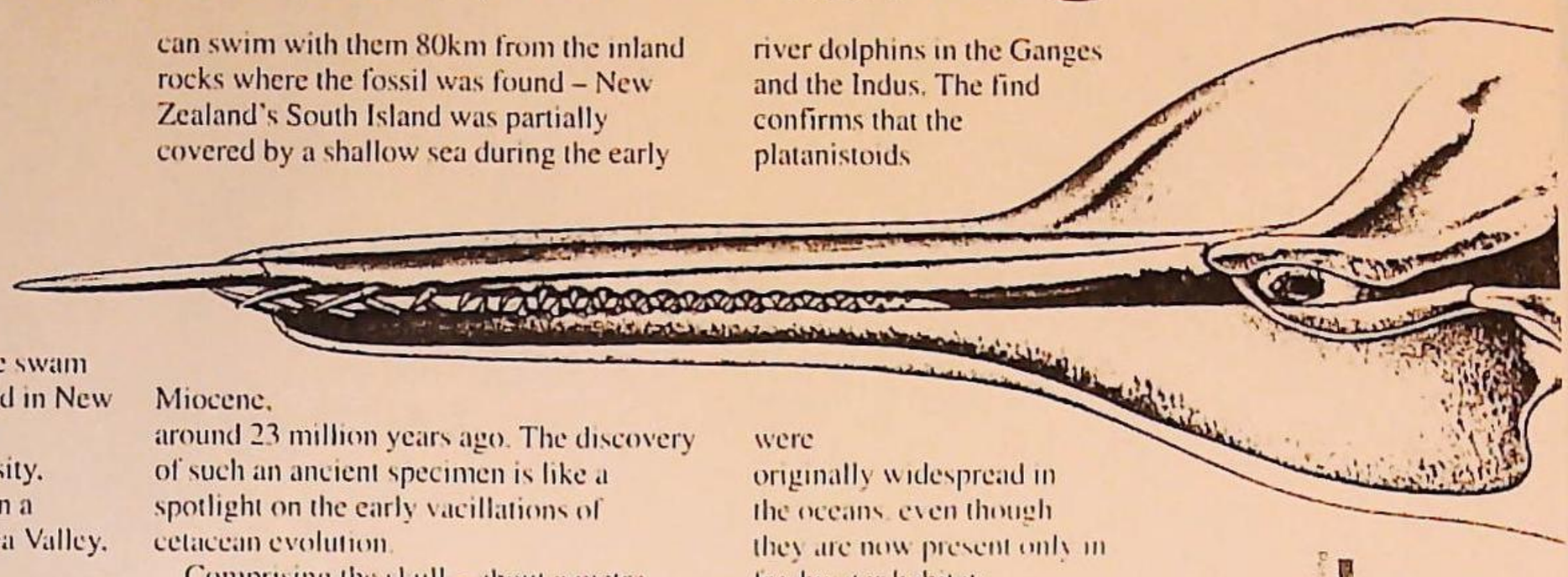
Whether these teeth had a function, or were a male display, can only be guessed at. Originally about 30cm in length (including the root), they may have been broken by fighting.

The dolphin appears to be a new species, possibly a new genus, in the extinct family Squalodelphidae. This group contained early toothed dolphins that fed on fish and other marine prey. They are also known from finds in Argentina, Italy, France and elsewhere in New Zealand.

Their closest living relatives are from the family Platanistidae, the endangered river dolphins in the Ganges and the Indus. The find confirms that the platanistoids were originally widespread in the oceans, even though they are now present only in freshwater habitats.

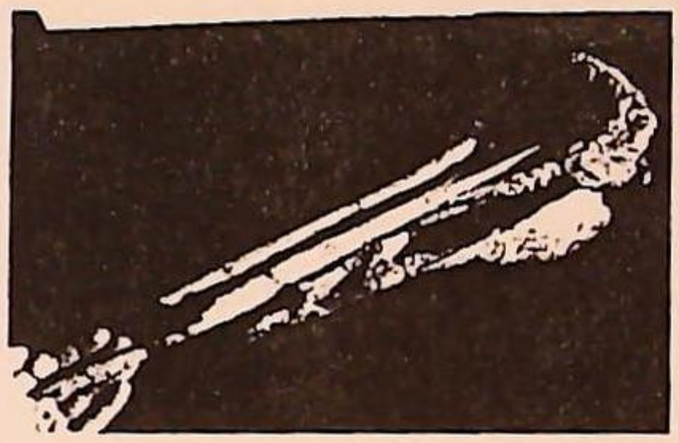
The rise of the Delphinoidea – modern dolphin families – occurred at about the same time. Now the most diverse and widespread of all the cetaceans, these delphinids also developed sophisticated echolocation to catch high-speed prey. Using it to communicate socially may (among other variables we don't know about yet) have given them the competitive edge.

ALISON CRAIG



Peter Visscher

◆ **Skull construction. This is a specul lateral view of tl tusked dolphin's head based on t fossilised skull *(below)*. There a insufficient foss dolphins to be s what the bodies were like.**



Ewan Fordyce

Cetacean snippets

◆ Whales and dolphins – the cetaceans – evolved from terrestrial mammals around 50 million years ago, during a phase when mammals were rapidly filling every possible ecological niche left by the recession of the dinosaurs. The order Cetacea comprises 44 living genera and about 150 fossil genera.

◆ The first cetaceans were the Archaeoceti, amphibious mammals which probably colonised estuaries. Adaptations which enabled the animal to catch fast marine fish allowed them a progressively more aquatic mode of life. Toothed whales and dolphins (the Odontocetes) and filter-feeders (the Mysticetes) proliferated in the Oligocene Miocene.

The gentle touch

PARASITISM Swifts are not slowed down by their insect parasites.

Research on Oxford's celebrated swifts has uncovered a pair of parasites that do not appear to harm their hosts. The parasites in question are a chewing louse – which spends its time riding on the backs of swifts – and a louse fly, which lives in the birds' nests. The louse feeds on blood and skin debris, while the fly sucks blood from its host every five days or so.

Zoologists have long suspected that these parasites might be relatively harmless, despite their gruesome habits. To find out for sure, Dan Tompkins and his colleagues at the University of Oxford took parasites from one set of nests and added them to others, thereby creating nests with either high or low numbers of each parasite.

The team detected no differences between the two sets of nests. Growth of nestlings and fledging success – the proportion of nests in which all young fledged successfully – were apparently unaffected by the level of parasite infestation (*Functional Ecology*, vol. 10, p733-40).

Why are the parasites so considerate towards their victims? Unlike many other parasites, the chewing louse and the louse fly infect new hosts mainly via 'vertical transmission' – from parents to their offspring. If the parasites had seriously damaging effects, then their own young would get inferior-quality hosts, and that wouldn't make evolutionary sense.

CLARE PUTNAM

Tower flock

◆ Since 1948, the tower of the Oxford University Museum of Science has been equipped with nestboxes for swifts for long-term research purposes.

◆ The birds return to Oxford from South Africa every May, and raise a brood of two or three youngsters before flying south again.

◆ Classic research on the birds was carried out by the late David Lack, author of *Swifts in a Tower* (1956).

Derek Bramhall/Oxford Scientific Films

◆ **Itchy nest syndrome. The louse fly lives i swifts' nests.**

SOUTHERN NARWHAL-LIKE ANIMAL

SCHOUTEN, Guillaume (=Willem Cornelisz)

1619 *Journal ou description du merveilleux voyage de Guillaume chouten, Hollandois natif de Hoorn, fait ès années 1615, 1616 & 1617*. Amsterdam, chez Harman Ianson : 9-10.

(Atlantique nord, octobre 1615, à bord de l'*Eendracht*).

"Le 5 d'october [*sic*] nous nous trouvasmes à la hauteur de 4 degrez 17 minutes, sur le midy y avoit un grand bruit au devat du navire, tellement que le maistre du navire, estant en arrière en la galerie, pensa que quelqu'un des matelots tomboit de la proue du navire en la mer, & redargant [*sic*] du costé du navire, vid que la mer n'estoit que du sang, comme s'il y eut esté espandu beaucoup de sang, sans qu'il sceut que cestoit ; mais trouvasmes puis après qu'un grand monstre marin avoit heurté contre le navire avec sa corne d'une violente force : car lors qu'estions arrivez en la rivière de Porto Desire, & que nostre navire fut sur le rivage pour estre nettoyé & calfaté, nous trouvasmes en la proue du navire environ 7 pieds [2,10 m] sous l'eau une corne de façon & grosseur comme le bout d'une dent d'Eléphant, de longueur environ d'un pied [30 cm], estant rompu avec grande violence & force, ayant percé le navire tout outre, & pénétré par trois planches bien fortes & épaisses , tellement que (sans nostre sceu) eussions esté en grand danger de perdre ensemble & le navire & la vie."

on October 5 [1615], we were by 4 deg. 17 mn [N. lat., Atlantic Ocean], at 12 o'clock there was a great noise at the top of the boat, so that the master thought that one of the sailors fall into the sea, and looking aside, saw that the sea was covered with blood - But we found that a great sea monster had chocked the boat with its horn with violent strength : because while at Porto Desire river [...] we found about 7 feet under the water a horn like the tip of an elephant tooth about 1 foot long ....